

IN THE CLAIMS:

Please amend Claims 1, 3, 4, 8, 10, 11, and 13, as follows. Note that all claims in the application are being reproduced below in accordance with current U.S. Patent and Trademark Office requirements.

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1. (Currently Amended) An image processing apparatus comprising:

detection means for detecting the state of ~~a resource~~ resources to be used to output image data;

prediction means for predicting whether or not to abort the outputting of the image data in accordance with an image data to be output and the state of the ~~resource~~ resources detected by said detection means;

output control means for suspending a start of outputting of the image data, if an abort is predicted by said prediction means; and

storage means for storing the ~~output~~ image data which said output control means has suspended,

wherein said output control means performs one of a first sequence in which an output operation of a second image data input after a first image data is started before an output operation of the first image data is finished and a second sequence in which the output operation of the second image data is started after the output operation of the first image data is finished;

and

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wherein said output control means is allowed to select one of the first sequence and the second sequence when abort is predicted by said prediction means and to perform the second sequence when abort is not predicted by said prediction means.

2. (Original) The apparatus according to claim 1, wherein when second image data to be output exists in addition to first image data for which abort is predicted, said output means outputs the second image data preferentially to the first image data.

3. (Currently Amended) The apparatus according to claim 1, wherein said output control means comprises selection means ~~capable of~~ for selecting whether or not to suspend output image data, for which abort is predicted or forcibly perform outputting.

4. (Currently Amended) The apparatus according to claim 3, further comprising ~~wherein said~~ instruction means ~~capable of~~ for instructing said selection means to suspend or forcibly perform output of image data, for which abort is predicted.

5. (Original) The apparatus according to claim 1, further comprising display means for displaying an abort prediction result by said prediction means.

6. (Original) The apparatus according to claim 5, wherein when output of image data is suspended, said display means displays a message indicative thereof.

7. (Original) The apparatus according to claim 1, wherein said output means comprises output cancel means for cancelling output of output-suspended image data.

8. (Currently Amended) The apparatus according to claim 3, further comprising setting means ~~capable of~~ for setting a selection result of said selection means in advance.

9. (Original) The apparatus according to claim 8, further comprising verification means for verifying setting of said setting means.

10. (Currently Amended) An image processing method comprising:
a storage step of storing image data;
a detection step of detecting the state of ~~a resource~~ resources to be used to output the image data stored in the storage step;
a prediction step of predicting whether or not to abort the outputting of the image data in accordance with an image data to be output and the state of the resource resources detected in the detection step; and
~~the~~ a suspension step of suspending a start of outputting of the image data, if an abort is predicted in the prediction step,
wherein said output control means performs one of a first sequence in which an output operation of a second image data input after a first image data is started before an output operation of the first image data is finished and a second sequence in which the output operation

of the second image data is started after the output operation of the first image data is finished;

and

wherein said output control means is allowed to select one of the first sequence
and the second sequence when abort is predicted by said prediction means and to perform the
second sequence when abort is not predicted by said prediction means.

11. (Currently Amended) An image processing method comprising:

a storage step of storing image data;

A1 an abort prediction step of comparing a resource necessary for outputting with
an actual resource for first image data to be output first out of image data that are stored in the
storage step and to be output, and predicting whether or not to abort the outputting of the first
image data from the comparison result; and

an output order change step of, when abort of output is predicted in the abort
prediction step, changing an output order so as to output the first image data after second image
data was scheduled to be outputted after the first image data,

wherein said output control means performs one of a first sequence in which an
output operation of a second image data input after a first image data is started before an output
operation of the first image data is finished and a second sequence in which the output operation
of the second image data is started after the output operation of the first image data is finished;
and

wherein said output control means is allowed to select one of the first sequence and the second sequence when abort is predicted by said prediction means and to perform the second sequence when abort is not predicted by said prediction means.

12. (Original) The method according to claim 11, wherein the abort prediction step is performed only when image data to be output exists in addition to the first image data, and the first image data is directly output when no image data to be output exists in addition to the first image data.

13. (Currently Amended) A computer-readable memory comprising:
a program module of a detection step of detecting a state of ~~a resource~~
resources to be used to output image data;
a program module of a prediction step of predicting whether or not to abort the outputting of the image data in accordance with an image data to be output and the state of the ~~resource~~ resources detected in the detection step; and
a program module of an output step of suspending a start of outputting of the image data, if abort is predicted in the prediction step,

wherein said output control means performs one of a first sequence in which an output operation of a second image data input after a first image data is started before an output operation of the first image data is finished and a second sequence in which the output operation of the second image data is started after the output operation of the first image data is finished;
and

wherein said output control means is allowed to select one of the first sequence and the second sequence when abort is predicted by said prediction means and to perform the second sequence when abort is not predicted by said prediction means.

Please add Claims 14-36 as follows:

--14. (New) An image processing apparatus comprising:

a storage unit, adapted to store a plurality of job data including a first job data and a second job data input after the first job data;

a print unit, adapted to print job data stored in said storage unit;

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a selector, adapted to select one of a first sequence for causing said print unit to start a print operation of the second job data before a print operation of the first job data is finished and second sequence for causing said print unit to start the print operation of the second job data after the print operation of the first job data is finished;

a controller, adapted to cause the image processing apparatus to perform the sequence selected by said selector of the first sequence and the second sequence when status of the image processing apparatus is a status in which said print unit can not finish the print operation of the first job data and to perform the second sequence of the first sequence and the second sequence when status of the image processing apparatus is a status in which said print unit can finish the print operation of the first job data.

15. (New) A job processing method for an image processing apparatus comprising a storage unit adapted to store a plurality of job data including a first job data and a second job data input after the first job data and a print unit adapted to print data stored in said storage unit, the method comprising:

an input step of inputting an instruction to select one of a first sequence for causing said print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing said print unit to start the print operation of the second job data after the print operation of the first job data is finished; and

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a control step of causing the image processing apparatus to allow an execution of the sequence selected by the instruction of the first sequence and the second sequence when a status of the image processing apparatus is a status in which said print unit can not finish the print operation of the first job data and to allow an execution of the second sequence of the first sequence and the second sequence when a status of the image processing apparatus is a status in which said print unit can finish the print operation of the first job data.

16. (New) The method according to claim 15, wherein the image processing apparatus can print, via said storage unit, at least one of a job data output from a scanning unit and a job data output from a computer.

17. (New) The method according to claim 15, wherein the image processing apparatus has a plurality of functions including a copy function for causing said print

unit to print via said storage unit a job data output from a scanning unit and a print function for causing said print unit to print via said storage unit a job data output from a computer.

18. (New) The method according to claim 15, wherein the control step causes the image processing apparatus to perform the sequence selected by the instruction of the first sequence and the second sequence at least one of a case where said print unit can not finish the print operation of the first job data because of a status of the image processing apparatus related to a sheet used in the print operation of the first job data and a case where said print unit can not finish the print operation of the first job data because of a status of the image processing apparatus related to a stack unit stacking the sheets on which the first job data is printed and a case where said print unit can not finish the print operation of the first job data because of a status of the image processing apparatus related to a stapling process to the sheets on which the first job data is printed.

19. (New) The method according to claim 15, wherein the image processing apparatus can print, via said storage unit, at least one of a job data output from a scanning unit and a job data output from a computer, and in said input step the instruction is input via an operating unit of the image processing apparatus.

20. (New) The method according to claim 15, wherein the image processing apparatus can print, via said storage unit, at least one of a job data output from a

scanning unit and a job data output from a computer, and in said input step the instruction is input via an operating unit of the computer.

21. (New) The method according to claim 15, wherein the image processing apparatus can print, via said storage unit, at least one of a job data output from a scanning unit and a job data output from a computer, and in said control step it is noted to an operator by an operation unit in either the image processing unit or the computer that the first job data is not able to be completely printed.

A1 22. (New) The method according to claim 15, wherein the control step causes said print unit to start the print operation of the second job data and causes said print unit to stop the print operation of the first job data in the first sequence.

23. (New) The method according to claim 15, wherein the control step causes said print unit to start the printing operation of the first job data in the second sequence when the status of the image processing apparatus is not required for finishing a printing process of the first job data, even if a problem which interrupts the printing operation of the first data occurs in the image processing apparatus.

24. (New) The method according to claim 15, wherein said control step causes said storage unit to store the first job data, which is not finished to print because of performing the first sequence and wherein an erasing process for erasing the first job data stored

in said storage unit and an printing process for printing the first job data stored in said storage unit are able to be selectively performed based on an instruction from an operating unit after finishing the printing operation of the second job data.

25. (New) A computer readable memory on which is a job processing method program for an image processing apparatus comprising a storage unit adapted to store a plurality of job data including a first job data and a second job data input after the first job data and a print unit adapted to print data stored in said storage unit, the memory comprising:

A₁ a program module of an input step of inputting an instruction to select one of a first sequence for causing said print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing said print unit to start the print operation of the second job data after the print operation of the first job data is finished;

a program module of a control step of causing the image processing apparatus to allow an execution of the sequence selected by the instruction of the first sequence and the second sequence when a status of the image processing apparatus is a status in which said print unit can not finish the print operation of the first job data and to allow an execution of the second sequence of the first sequence and the second sequence when a status of the image processing apparatus is a status in which said print unit can finish the print operation of the first job data.

sub B₁ 26. (New) An image processing apparatus comprising:

27. a storage control unit, adapted to cause a storage unit, which can store a plurality of job data including a first job data and a second job data input after the first job data, to store job data to be printed;

a print unit, adapted to print job data stored in said storage unit;

28. a controller, adapted to cause the image processing apparatus to allow an execution of at least one of a first sequence for causing said print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing said print unit to start the print operation of the second job data after the print operation of the first job data is finished when status of the image processing apparatus is a first status in which said print unit can not finish the print operation of the first job data and to allow an execution of the second sequence when status of the image processing apparatus is a second status in which said print unit can finish the print operation of the first job data; and

a certification unit, adapted to perform a certification process in the permitting of a print operation of job data to be printed,

wherein said controller causes said certification unit to perform the certification process when at least one of the first sequence and the second sequence is performed in the first status and causes the image processing apparatus to allow the execution of the second sequence without a performing of the certification process by said certification unit in the second status.

27. (New) A job processing method for an image processing apparatus comprising a storage unit adapted to store a plurality of job data including a first job data and a

second job data input after the first job data and comprising a print unit adapted to print data stored in said storage unit, the method comprises:

A1 a control step of causing the image processing apparatus to allow an execution of at least one of a first sequence for causing said print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing said print unit to start the print operation of the second job data after the print operation of the first job data is finished when a status of the image processing apparatus is a first status in which said print unit can not finish the print operation of the first job data and to allow an execution of the second sequence when a status of the image processing apparatus is a second status in which said print unit can finish the print operation of the first job data; and

a certification request step of performing a request for a certification process in the permitting of a print operation of job data to be printed, to a user by a user interface unit, and

wherein said control step causes the user interface unit to perform the request when at least one of the first sequence and the second sequence is performed in the first status and causes the image processing apparatus to allow the execution of the second sequence without a performing of the request by the user interface unit in the second status.

28. (New) The method according to claim 27, wherein the image processing apparatus can print, via said storage unit, at least one of a job data output from a scanning unit and a job data output from a computer,

wherein the control step causes the image processing apparatus to perform either the first sequence of the second sequence based on a selection instruction input via at least

one of an operation unit of the image processing apparatus and an operation unit of the computer when the image processing apparatus is in the first status, and

wherein in the certification request step the request is performed via at least one of an operation unit of the image processing apparatus and an operation unit of the computer.

29. (New) the method according to claim 27, wherein said control step causes the user interface unit to perform the request when the first sequence is performed in the first status and causes the user interface unit to perform the request when the second sequence is performed in the first status.

30. (New) A computer readable memory on which a job processing method program for an image processing apparatus comprising a storage unit adapted to store a plurality of job data including a first job data and a second job data input after the first job data and comprising a print unit adapted to print data stored in said storage unit, the memory comprising:

a program module of a control step of causing the image processing apparatus to allow an execution of at least one of a first sequence for causing said print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing said print unit to start the print operation of the second job data after the print operation of the first job data is finished when a status of the image processing apparatus is a first status in which said print unit can not finish the print operation of the first job data and to allow an execution of the second sequence when a status of the image processing

apparatus is a second status in which said print unit can finish the print operation of the first job data; and

a program module of a certification request step of performing a request for a certification process in the permitting of a print operation of job data to be printed, to a user by a user interface unit, and

wherein said control step causes the user interface unit to perform the request when at least one of the first sequence and the second sequence is performed in the first status and causes the image processing apparatus to allow the execution of the second sequence without a performing of the request by the user interface unit in the second status.

31. (New) An image processing apparatus comprising:

a storage control unit, adapted to cause a storage unit, which can store a plurality of job data including a first job data and a second job data input after the first job data, to store job data to be printed;

a print unit, adapted to print job data stored in said storage unit;

a controller, adapted to cause the image processing apparatus to allow a selective execution of either a first sequence for causing said print unit to start a print operation of the second job data before a print operation of the first job data is finished or a second sequence for causing said print unit to start the print operation of the second job data after the print operation of the first job data is finished, when status of the image processing apparatus is a status in which said print unit can not finish the print operation of the first job data and said storage unit stores a plurality of job data to be printed, and to allow an execution of the second

sequence when a plurality of job data to be printed are stored in said storage unit no matter whether status of the image processing apparatus is the status in which said print unit can not finish the print operation of the first job data.

32. (New) A job processing method for an image forming apparatus comprising a storage unit adapted to store a plurality of job data including a first job data and a second job data input after the first job data and comprising a print unit adapted to print job data stored in said storage unit, the method comprising:

A. a storage control step of causing said storage unit to store job data to be printed; and

a control step of causing the image processing apparatus to allow a selective execution of one of a first sequence for causing said print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing said print unit to start the print operation of the second job data after the print operation of the first job data is finished, when a status of the image processing apparatus is a status in which said print unit can not finish the print operation of the first job data and a plurality of job data to be printed are stored in said storage unit, and to allow an execution of the second sequence when a plurality of job data to be printed are not stored in said storage unit no matter whether a status of the image processing apparatus is the status in which said print unit can not finish the print operation of the first job data.

33. (New) The method according to claim 32, wherein the image processing apparatus can print, via said storage unit, at least one of a job data output from a scanning unit and a job data output from a computer,

wherein the control step causes the image processing apparatus to perform one of the first sequence and the second sequence based on a selection instruction input via at least one of an operation unit of the image processing apparatus and an operation unit of the image processing apparatus and an operation unit of the computer, when status of the image processing apparatus is a status in which said print unit can not finish the print operation of the first job data and a plurality of job data to be printed are stored in said storage unit.

34. (New) The method according to claim 32, wherein the control step causes said print unit to start the printing operation of the first job data when a plurality of job data to be printed are not stored in said storage unit, even if a problem which interrupts the printing operation of the first data occurs in the image processing apparatus.

35. (New) A computer readable memory on which a job processing method program for an image forming apparatus comprising a storage unit adapted to store a plurality of job data including a first job data and a second job data input after the first job data and comprising a print unit adapted to print job data stored in said storage unit, the memory comprising:

a program module of a storage control step of causing said storage unit to store job data to be printed; and

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a program module of a control step of causing the image processing apparatus to allow a selective execution of one of a first sequence for causing said print unit to start a print operation of the second job data before a print operation of the first job data is finished and a second sequence for causing said print unit to start the print operation of the second job data after the print operation of the first job data is finished, when a status of the image processing apparatus is a status in which said print unit can not finish the print operation of the first job data and a plurality of job data to be printed are stored in said storage unit, and to allow an execution of the second sequence when a plurality of job data to be printed are not stored in said storage unit no matter whether a status of the image processing apparatus is the status in which said print unit can not finish the print operation of the first job data.

36. (New) An image processing apparatus comprising:

detection means for detecting the state of resources to be used for printing;

prediction means for predicting whether or not the printing of the image data is interrupted, in accordance with an image data to be printed and the state of the resources detected by said detection means; and

output control means for suspending a start of printing the image data and for storing the image data, if the interruption is predicted by said prediction means.--